

## Levels of Burnout and Resilience Among Nursing Staff at a Public Sector Tertiary Hospital in Swat.

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### Abstract

**Background:** Burnout refers to a state of physical, emotional, and psychological fatigue resulting from over time exposure to stress, particularly in demanding domains such as health care. While coping builds the ability to withstand stress and cope with pressure, resilience is the ability to bounce back to normal wellbeing after a stressful period easily. In its simplest terms, nurses—counted among the fundamental members of the health care system offer crucial patient care in sometimes testing circumstances.

**Aim:** The study aimed to assess burnout and resilience among nurses working in a public-sector tertiary care hospital in District Swat.

**Methods:** The study employed an analytical cross-sectional design to assess burnout and resilience among nurses in a tertiary care hospital in Swat. A convenient sampling technique selected 84 nurses, meeting specific inclusion and exclusion criteria. Data were collected using the Maslach Burnout Inventory (MBI) and Connor-Davidson Resilience Scale (CD-RISC) over two weeks and analyzed via SPSS (version 26). Descriptive statistics and Chi-square tests examined burnout, resilience, and their associations.

**Results:** The study assessed burnout and resilience among 84 nurses in a tertiary care hospital. Most participants were young females with moderate levels of burnout and resilience. The most prevalent burnout dimensions were emotional exhaustion, depersonalization, and reduced personal accomplishment. Significant associations were found between resilience and all burnout dimensions, highlighting the importance of resilience in reducing burnout.

**Conclusion:** The study found moderate levels of burnout among nurses, especially in emotional exhaustion and personal accomplishment. Most nurses demonstrated moderate resilience, but a significant portion showed low resilience. A strong association between burnout and resilience suggests that improving resilience could help reduce burnout and enhance nurses' wellbeing in high-stress environments.

**Keywords:** Burnout, Resilience, Nursing workforce, Workplace coping

## Introduction

Burnout refers to physical, emotional, and psychological fatigue resulting from over time exposure to stress, particularly in demanding domains such as health care. While coping builds the ability to withstand stress and cope with pressure, resilience is the ability to bounce back to normal wellbeing after a stressful period easily. (1). In its simplest terms, nurses—counted among the fundamental members of the health care system offer crucial patient care in sometimes testing circumstances. (2). There are organized healthcare delivery systems available in the public sector, and governmental agencies run them, to forward the concept of an affordable healthcare service delivery; however, they are majorly constrained by available resources. Based on such premises, this study aims to compare the effects of burnout and resilience on healthcare delivery and the wellbeing of nurses in the public sector. (3).

Nursing is the principal component of health care delivery; others include care, teaching, and consultation. Several challenges affect the working and personal lives of nurses some of them include; (4). The nurses employed in the public sectors are most affected by the following challenges: High working load, long working hours, and Emerson strain, which leads to burnout. Their welfare depends on the treatment that is accorded to patients. (5). Knowing things like exhaustion and coping can help them have better mental health and make the nursing staff more sustainable. (6). They remain relevant as this study focuses on public sector healthcare organizations since the environment of the public sector healthcare organization is challenging. (7)

Work-related stress, specifically burnout, is an emerging crisis in the nursing profession, and the research suggests that more than 40% of nurses are severely burnt out. (8). The undertakings require that public sector nurses are at a higher risk of being attacked given the scarcity of necessary resources, lack adequate personnel, and cope with demanding patients. (9). These conditions cause them to develop chronic stress, which is a condition known as ‘emotional exhaustion’ in their social lives and workplaces. To protect the force and augment the quality of health solutions, it is important to confront the problems of burnout. Understanding these processes may offer a rationale for specific approaches to preventing burnout. (10).

There are several reasons why burnout is observed in the public sector nurses. Academic-related factors include human resource-related issues, such as inadequate numbers of staff, lack of administrative support, and poor working conditions. (11). Other individual factors that lead to burnout are job characteristics such as having no work-life balance and emotional labor. Organizational requirements, including never-ending pressure to be understanding of people's hardships, also cause them stress. (12). Discussions of these IMDs make it essential for developing robust ideas of the experiences of the contributors to burnout since they range in their distinct interconnectivity. (13).

Professional burnout in the present study hence compromises the personal wellbeing as well as performance of the nurses significantly. It may socially lead to unemployment and relationship breakdown, physically it may result to weaker immune system, fatigue and chronic diseases, mentally, may lead to anxiety, depression and stress. (14). In the workplace, burnout results in decreased job performance, low quality of service provision, and increased prevalence of fail-safe mistakes. (15). The combined effect of burnout also leads to high turnover rates of the nurses; this exacerbates the difficulties faced by public health care systems. Identifying such effects shows the utmost need to deal with this burnout in this important staff. (16).

From this perspective, resilience serves the role of a moderator, which helps nurses manage stress levels and further prevent burnout. (17). Resilient people can cope well and have improved problem-solving skills. Especially in complex workplace settings. For the nurses them resilience promotes stamina and allows the staff to overcome obstructions without eradicating the standard of the care. (18). Enlarging the anti-burnout immunity is another way of protecting the health of the working nurses, which is another way of enhancing safety among the nurses. (19).

According to nurse resilience, resilience is a force factor in the outcome of nurses' professional commitment, emotional, and adaptability in the face of tribulation. It's also important to note that many public sectors nurses practice in organizations where resources are limited and fortitude is absolute. (20). In particular, training in mindfulness, emotional self-regulation, and peer support seems to improve students' resilience as a result. The development of such characteristics is thus not only in the self-interest of the nurse but for the enhancement of the health services as a whole. (21). The need to encourage individual and organizational resilience is critical for sustaining the nursing workforce. (22).

While there has been increased focus on burnout and resilience in nursing, there is still a literature deficiency in public sector healthcare. (23). There is added pressure from numerous works targeting the difficulties concerning burnout. Yet, there are few studies that provide thorough analysis of the relational and reciprocate dynamics between burnout and resilience. (23). Further, more work is lacking in less developed areas where these problems are reported most. (24). This study fills these gaps by examining the correlation between burnout and resilience of the nurses in the public sector.

### Methodology

An analytical cross-sectional design was employed. The study was conducted in a public-sector tertiary care hospital (SGTH) in District Swat. The sample size was calculated by the Roasoft calculator, with specific parameters guiding the calculation. The population size (N) was set at 120, and the hypothesized frequency of the outcome factor in the population (p) was assumed to be 50%, with a margin of error of  $\pm 5\%$ . The Confidence interval was set at 95%, ensuring a robust estimation of the sample. The calculated sample size for the study was 84 participants. A convenient sampling technique was used in this study. All registered nurses who are working at tertiary care hospital swat were included in the study.

### Data Collection Procedure

Step 1: Permission was obtained from the hospital administration to conduct the study.

Step 2: Nurses were approached individually and briefed on the study's purpose, and informed consent was obtained.

Step 3: The Maslach Burnout Inventory (MBI) and Connor-Davidson Resilience Scale (CD-RISC) were distributed to the participants.

Step 4: Data were collected over two weeks to ensure sufficient responses

### Data Analysis Procedure

Data entry and analysis were done using the Statistical Package for Social Sciences (SPSS), version 26. The categorical variables, such as age, years of experience, gender, and education level, were computed in frequencies and percentages. Similarly, frequency and percentage were used to represent burnout and resilience. Furthermore, the Chi-square test was applied to determine the association between burnout and resilience.

## Results and analysis

### Demographic Characteristics of Participants.

The participants' demographic data shows that the nurses practicing in the tertiary care hospital are diverse. Regarding age, the greater portion of the participants (47.6 %) were between 20–30 years while 35.7 % were between 31–40 years and 16.7 % were in the age group 41–50 years. Females dominated the sample at 64.3%, and a smaller proportion of males comprised 35.7%. (Table 1)

Table 1: Demographic Characteristics of Participants (n=84)

Variable	Frequency (n)	Percentage (%)
Age Group		
20–30 years	40	47.6

31–40 years	30	35.7
41–50 years	14	16.7
Gender		
Male	30	35.7
Female	54	64.3
Years of Experience		
6 months–5 years	50	59.5
6–10 years	24	28.6
>10 years	10	11.9
Education Level		
Diploma	30	35.7
Bachelor's	54	64.3

Figure 1: Age Distribution of Nurses.

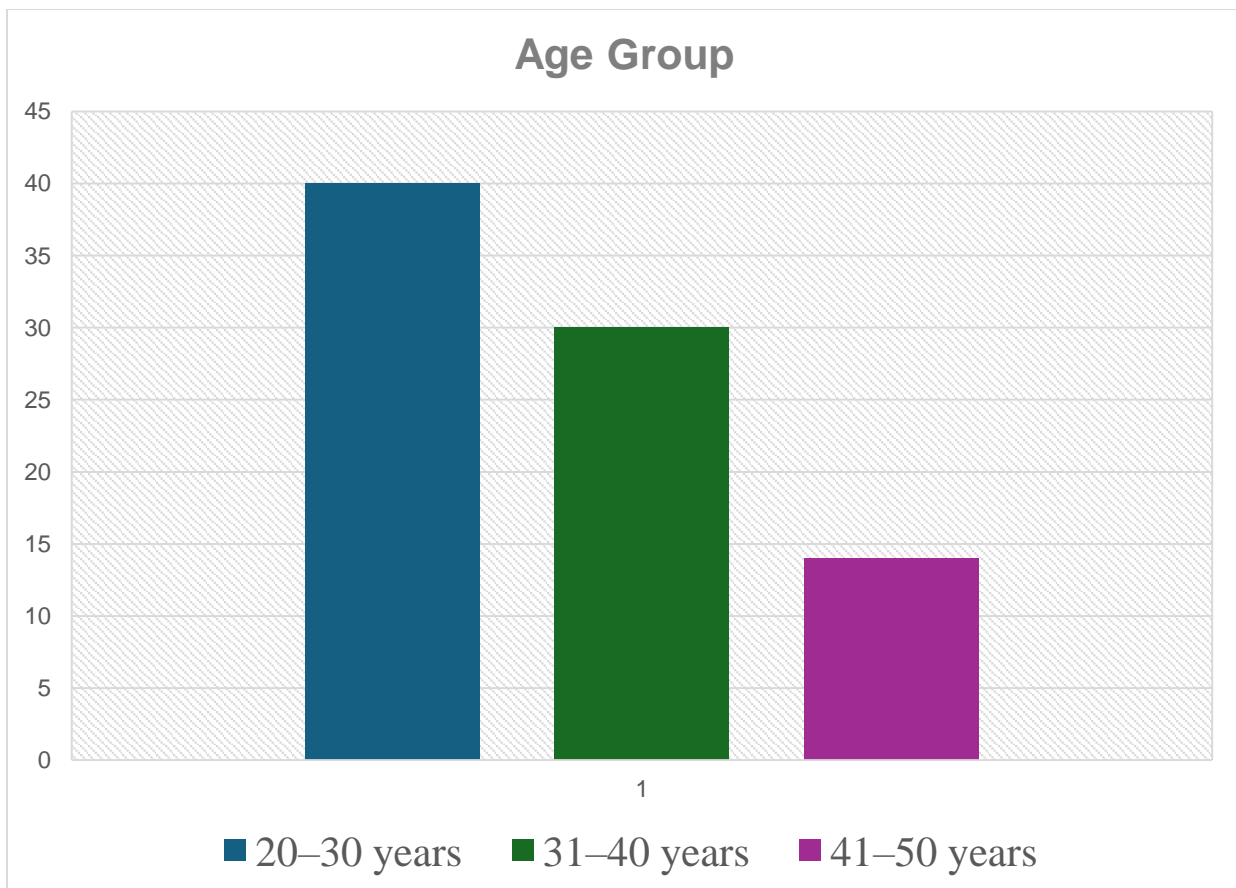


Figure 1: Most nurses (47.6%) were aged between 20–30 years, followed by 35.7% in the 31–40 age group and 16.7% aged 41–50 years. This indicates a predominantly young nursing workforce in the hospital.

**Figure 2: Experience of Nurses.**

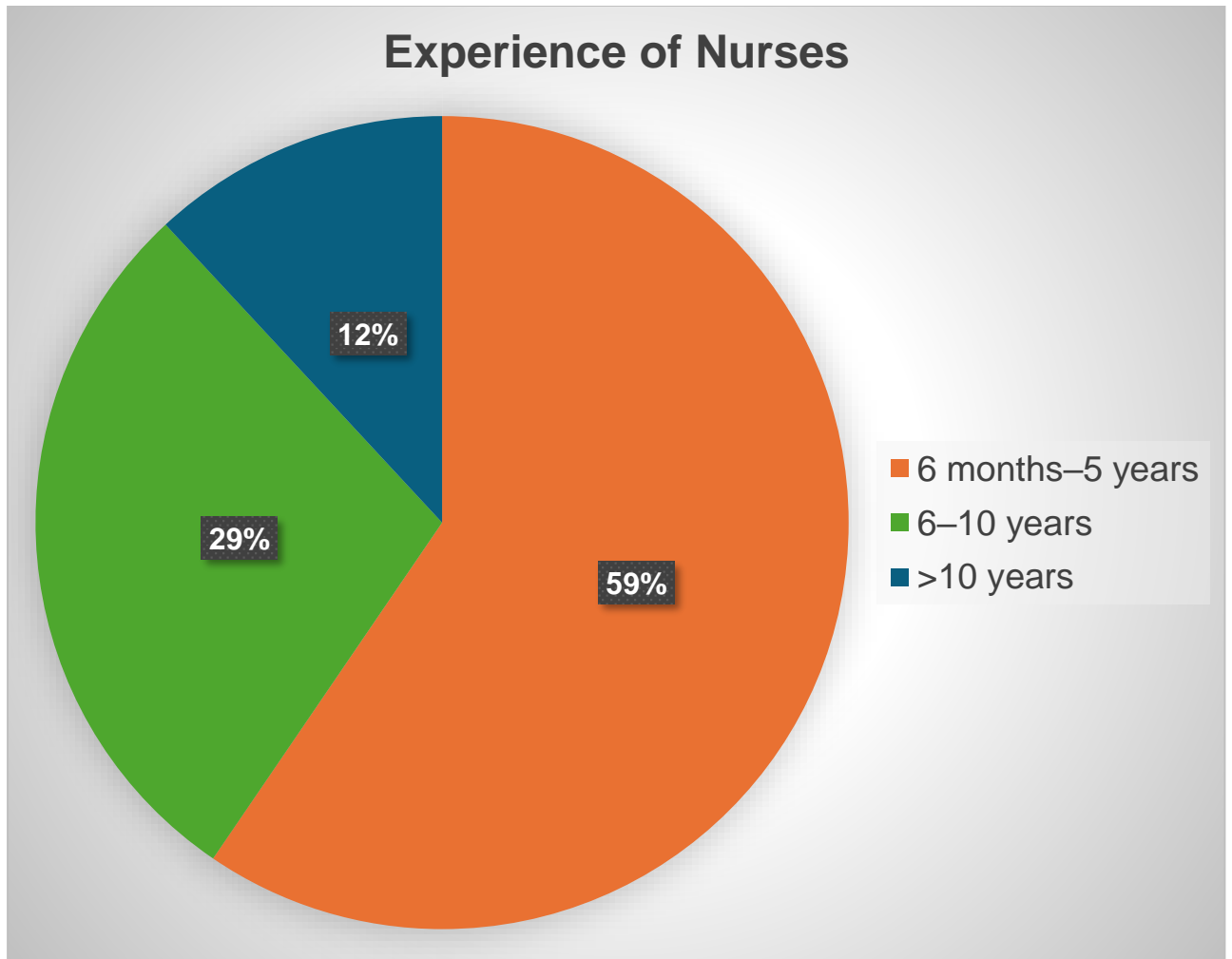


Figure 2: Most nurses (59.5%) had between 6 months and 5 years of experience, followed by 28.6% with 6–10 years and 11.9% with over 10 years of experience, indicating a moderately experienced workforce.

### **Burnout Levels Among Nurses**

The burnout levels among nurses were assessed across three dimensions: burnout, depersonalization, and personal competence. On the emotional exhaustion scale, moderate scores had the highest frequency (59.5%), whereas low scores were 21.4% and high scores were 19.1%. Similarly, 53.6% of participants reported moderate depersonalization, 26.2% reported low depersonalization, and 20.2% reported high depersonalization. The source of personal accomplishment (inverse) was moderately present at 61.9% of the total nurses present, while 17.9% are low for individual accomplishment, and 20.2% high.

**Table 2: Burnout Levels Among Nurses**

Burnout Dimension	Low (%)	Moderate (%)	High (%)
Emotional Exhaustion	18 (21.4)	50 (59.5)	16 (19.1)
Depersonalization	22 (26.2)	45 (53.6)	17 (20.2)
Personal Accomplishment (inverse)	15 (17.9)	52 (61.9)	17 (20.2)

### Resilience Levels Among Nurses

Therefore, the resilience level was grouped into low, moderate, and high resilience. Nurses had moderate resilience scores, meaning most of them (52.4%) could handle stress and other difficulties in a balanced way. About one-quarter (23.8%) of study participants possessed low resilience, while the same proportion had high resilience, meaning variability in their ability to cope with stressors.

**Table 3: Resilience Levels Among Nurses**

Resilience Score Range	Frequency (n)	Percentage (%)
Low (0–50)	20	23.8
Moderate (51–75)	44	52.4
High (76–100)	20	23.8

### Association Between Burnout and Resilience

Burnout and resilience were analyzed using the Chi-square test for three burnout dimensions. Results of the Chi-square test of independence revealed a highly significant relationship between emotional exhaustion and resilience, regarding the Chi-square value of 15.68 and  $p < 0.05$ , at .003. Likewise, there was a substantial correlation between depersonalization and resilience results (Chi-square = 10.54,  $p = 0.017$ ).

**Table 4: Association Between Burnout and Resilience (Chi-Square Test)**

Burnout Dimension	Chi-Square Value	p-value
Emotional Exhaustion vs Resilience	15.68	0.003
Depersonalization vs Resilience	10.54	0.017
Personal Accomplishment vs Resilience	12.12	0.008

### Discussion

The study informs on understanding burnout and resilience in nurses, as well as, about their association. Of these, 64.3% were female, and the age distribution indicated that 47.6% of the workers were between 20 and 30 years old. About 59.5% had a moderate proportion of professional experience with 6 months to 5 years of nursing practice. (25) Most participants, 59.5%, had a bachelor's degree, showing that the nursing workforce is moderately educated. These characteristics conform with the demography patterns usually associated with the health sector, where nursing is overwhelmingly practiced by females and a relatively young working force. (26). a predominantly female workforce (64.3%) with a relatively young age group, as 47.6% were between 20 and 30 years old. (27) Most had moderate professional experience, with 59.5% reporting 6 months–5 years of nursing practice. (28). Most participants were bachelor's degree holders (59.5%), highlighting a moderately educated nursing workforce. These characteristics are consistent with the demographics commonly observed in healthcare settings, where females and younger professionals largely dominate nursing. (29).

The burnout analysis showed that most nurses had moderate burnout levels in all three domains. Finally, emotional exhaustion, the most critical dimensional measure of burnout, was moderate in 59.5% of the participants, which suggests a relatively high level of stress related to the care of patients and workloads. (30). Depersonalization and reduced personal accomplishment presented profiles with moderate values, 53.6% and 61.9% of the investigated participants, respectively. These results are consistent with the previous studies done in a similar context, where moderate burnout was reported among the nurses because of high job demands and emotional work. However, the overall burnout rates of 19.1% and 20.2% for EE and DP,

respectively, indicate that nurses with high burnout rates are at risk for poor job satisfaction and work performance. (31).

The majority of the nurses were found to have moderate resilience. This shows that most nurses have an average resilience level to stress in the workplace. When asked about SS Resilience, there was an equal split, with 23.8% of respondents presenting low levels of Resilience and 23.8% presenting high levels. This distribution seems pretty reasonable because resilience depends on individual and organizational factors at the same time. The findings where low resilience is evident among many nurses increase the risk of negative turnover, such as burnout. (32).

This confirmation concurs with the Chi-square test results that established a significant correlation between burnout and resilience, where resilience offsets adversarial burnout. Depersonalization revealed the weakest correlation, with both turnover intention and burnout subscales, though still significant at  $p = 0.017$ . From these findings, it would therefore be advisable to conclude that increased resilience is connected with decreased levels of burnout in every single dimension. (33). This is in line with an obligation that establishes the relation between resilience and psychological wellbeing and superior performance of nurses, where resilience is considered an indispensable asset. Although individual coping capacity is essential, it is just as crucial to address the organizational system's level appropriately by, for example, lightening the workload and creating humane working conditions. (34).

In general, the present study suggests the importance of specific resilience promotion interventions for nurses, which may include stress-reducing seminars, buddy programs, and educational courses. Furthermore, to maintain a stable nursing workforce, it is a primary need to address the high-risk factors of developing burnout in organizations, including staff shortages and long working hours. Subsequent research can compare how this model, which interconnects personal resilience training with organizational changes, works to completely manage burnout.

## Conclusion

This paper points out the moderate burnout and resilience level among the selected nurses in the tertiary care hospital and the correlation between the two variables. In the current study, emotional exhaustion was the most diagnosed burnout dimension, and moderate resilience was the most prevalent among the participants. Interestingly, the study also concluded that resilience played an essential role in moderating burnout, showing that prospective interventions to increase nurses' resilience could help decrease stress and enhance their overall wellbeing among nurses. However, the overall burnout in many participants demands prompt organization-level measures, such as handling workload and organizational support. When a healthcare institution acknowledges and targets the personal and organizational characteristics of the employees, it supports the growth of a resilient nursing workforce, leading to improved quality of patient care.

## Recommendations

**Implement Resilience-Building Programs:** Implement stress prevention seminars and sessions, training in the use of effective coping strategies, group encouragement, and peer support.

**Optimize Workload Management:** To decrease low levels of emotional exhaustion and depersonalization, substitute the high workload with the employment of qualified nursing staff and develop real and equitable policies and procedures for staffing.

**Foster a Supportive Work Environment:** Strengthen a positive work environment by giving frequent feedback, employee appreciation, training, and development.

**Provide Access to Counseling Services:** Provide all opportunities for the nurses to get psychological support to reduce stress and emotions.

**Encourage Leadership Support:** Educate practice settings' supervisors and administrators on psychosocial factors and how they can support burnt-out nurses before they become too overwhelmed.

**Promote Educational Opportunities:** Continue providing educational and skill-development coursework to improve students' attitudes toward self-fulfillment and instructor advancement.

**Conduct Periodic Assessments:** Check the burnout and resilience rates more often to define trends and predict the effectiveness of measures taken.

**Advocate for Policy Changes:** Partner with healthcare policymakers to set policies on the protection of nurse wellbeing, such as staff to patient ratios and employee rest time.

**Encourage team collaboration:** Support the clinicians in undergoing organizational measures aimed at improving interpersonal relations. One such measure is depersonalization.

**Integrate Resilience and Burnout Awareness in Training:** Nursing courses must introduce future nurses to the values of resilience and burnout.

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